

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a method for processing said audio signals[[],] comprising:

dividing said first audio signal into a first spectral band signal and a second spectral band signal[[:]]

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion, ~~wherein said first scaling factor is proportional to said amplitude of said second audio signal; and~~

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion, and

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward.

2. (original) A method for processing audio signals in accordance with claim 1, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

3. (original) A method for processing audio signals in accordance with claim 1, wherein said first and second audio signals are associated with directional channels in a multichannel audio system.

4. (original) A method for processing audio signals in accordance with claim 3, further comprising, filtering said first signal portion by a first filter to produce a filtered first signal portion, and

filtering said second signal portion by a second filter to produce a filtered second signal portion.

5. (original) A method for processing audio signals in accordance with claim 4, wherein  $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$ , wherein *SF1* is said first scaling factor, *SF2* is said second scaling factor, *ampl1* is said amplitude of said first audio signal and *ampl2* is said amplitude of said second audio signal.

6. (original) A method for processing audio signals in accordance with claim 5, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect similar to that of the human head.

7. (withdrawn).

8. (currently amended) A method for processing first and second audio signals having first and second amplitudes respectively ~~in accordance with claim 5 further,~~ comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein  $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$ , wherein  $SF1$  is said first scaling factor,  $SF2$  is said second scaling factor,  $ampl1$  is said amplitude of said first audio signal and  $ampl2$  is said amplitude of said second audio signal, and

~~further comprising~~ combining said filtered second signal portion with said second spectral band signal.

9. (currently amended) A method for processing first and second audio signals having first and second amplitudes respectively, ~~in accordance with claim 5, further comprising,~~

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an appearance source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein  $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$ , wherein  $SF1$  is said first scaling factor,  $SF2$  is said second scaling factor,  $ampl1$  is said amplitude of said first audio signal and  $ampl2$  is said amplitude of said second audio signal, and

~~further comprising~~ combining said filtered first signal portion, said filtered second signal portion and said second spectral band signal.

10. (original) A method for processing first and second audio signals having first and second amplitudes respectively in accordance with claim 4, further comprising the step of combining said filtered first signal portion with said second audio signal.

11. (currently amended) A method for processing audio signals ~~in accordance with claim 4,~~ ~~further~~ comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

~~further comprising~~ combining said filtered second signal portion with said second spectral band signal.

12. (currently amended) A method for processing first and second audio signals having first and second amplitudes respectively ~~in accordance with claim 4, further comprising,~~

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

~~further comprising the step of~~ combining said filtered first signal portion, said filtered second signal portion and said second spectral band signal.

13. (original) A method for processing audio signals in accordance with claim 1, wherein  $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$ , wherein *SF1* is said first scaling factor, *SF2* is said second scaling factor, *ampl1* is said amplitude of said first audio signal and *ampl2* is said amplitude of said second audio signal.

14. (original) A method for processing audio signals in accordance with claim 1, further comprising,

filtering said first signal portion by a first filter to produce a filtered first signal portion, and

filtering said second signal portion by a second filter to produce a filtered second signal portion.

15. (original) A method for processing audio signals in accordance with claim 14, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect similar to that of the human head.

16. (original) A method for processing audio signals in accordance with claim 15, wherein one of said first filter or said second filter has filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the front of said human head and the other of said first filter or second filter has filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the rear of said human head.

17. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter have a filter portion having frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the front of said human head.

18. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter have a filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the rear of said human head.

19. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect inverse to said filter having a frequency response and time delay effect similar to the human head.

20. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, A a method for processing said audio signals comprising in accordance with claim 14,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

filtering said first signal portion by a first filter to produce a filtered first signal portion,  
and

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein one of said first filter ~~or~~ and said second filter[[s]] has a flat frequency response.

21. (currently amended) A method for processing audio signals in accordance with claim 20, wherein the other of said first filter ~~or~~ and said second filter[[s]] has a flat frequency response.

22. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a ~~A~~ method for processing said audio signals ~~in accordance with claim 14, further~~ comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,



scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered first signal portion with said second audio signal to produce a first combined signal.

23. (currently amended) A method for processing audio signals in accordance with claim 22, with an audio system including a directional loudspeaker unit, said combining further including combining said second spectral band signal and said filtered second signal portion so that said first combined signal includes said filtered first signal portion, said filtered second signal portion, said second spectral band signal, and said second audio signal and further comprising,

electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

24-25. (withdrawn).

26. (original) A method for processing audio signals in accordance with claim 1, wherein said first scaling factor and said second scaling factor are variable with respect to time.

27. (original) A method for processing audio signals in accordance with claim 1, wherein the sum of said first scaling factor and said second scaling factor is one.

28-45. (withdrawn).

46. (currently amended) In an audio system having a plurality of directional channels, a first audio signal and a second audio signal, said first and second audio signals representing adjacent directional channels on the same lateral side of a listener in a normal listening position, a method for processing said audio signals, comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first time varying calculated scaling factor related to the amplitude of said first audio signal to create a first signal portion; ~~and~~

scaling said first spectral band signal by a second time varying calculated scaling factor related to the amplitude of said second audio signal to create a second signal portion,

and adjusting said first and second scaling factors to make the apparent source of sound one of forward and rearward of said normal listening position.

47. (original) A method for processing audio signals in accordance with claim 46, further comprising,

filtering said first signal portion by a first filter to produce a filtered first signal portion, and

filtering said second signal portion by a second filter to produce a filtered second signal portion.

48. (currently amended) A method for processing first and second audio signals representing adjacent directional channels on the same lateral side of a listener in a normal listening position ~~in accordance with claim 47, further~~ comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first time varying calculated scaling factor related to the amplitude of said first audio signal to create a first signal portion; and

scaling said first spectral band signal by a second time varying calculated scaling factor related to the amplitude of said second audio signal to create a second signal portion,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered first signal portion with said second audio signal to produce a first combined signal.

49. (original) A method for processing audio signals in accordance with claim 48 with an audio system including a directional loudspeaker unit, said combining further including combining said second spectral band signal and said filtered second signal portion so that said first combined signal includes said filtered first signal portion, said filtered second signal portion, said second spectral band signal, and said second audio signal, said method further comprising,

electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

50-53. (withdrawn).

54. (original) A method for processing audio signals in accordance with claim 1, further comprising time delaying said first spectral band signal relative to said second spectral band signal.

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55. (new) A method for processing audio signals in accordance with claim 1 wherein said first scaling factor is proportional to said second audio signal amplitude.